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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/500,473	02/09/2000	Maurice Clarence Kemp	MORN-0002P2	2676
7590		05/06/2004	EXAMINER	
T. LING CHWANG		MADSEN, ROBERT A		
JACKSON WALKER, L.L.P.		ART UNIT		
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SUITE 600		1761		
RICHARDSON, TX 75080		DATE MAILED: 05/06/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/500,473

Applicant(s)

KEMP ET AL.

Examiner

Robert Madsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 11-79 is/are pending in the application.
- 4a) Of the above claim(s) 14-38 and 42-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed. 79
- 6) ☒ Claim(s) 1,4-9, 11-13 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The Amendment filed February 17, 2004 has been entered. Claims 2,3, and 10 have been cancelled. Claim 79 has been added. Claims 1,4-9,11-79 remain pending, and claims 14-38 and 42-78 remain withdrawn as directed to a non-elected invention.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1,4-9,11-13,39-41 and 79 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Claims 1,7,12,13,39 recite " the mole ratio of calcium hydroxide to sulfuric acid is less than about 0.5". However, the range of "less than 0.5" includes values outside of the disclosed ranges (e.g. 0.02 and 0). Cancelled claim 10, for example, recited a ratio range of 0.1-0.5 and Page 15 of the specification states 0.1-1.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1,4-9,11-13,39-41 and 79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 1,7,12,13,39 recite " the AGIIS is isolated from a mixture comprising sulfuric acid and calcium hydroxide, or a calcium salt, or a mixture of the two ...". and the claims further recite "wherein the mole ratio of calcium hydroxide to sulfuric acid is less than about 0.5". It is unclear if it is applicant's intention to exclude AGIIS complexes isolated from sulfuric acid plus calcium salt mixtures or if it is applicant's intention to recite a mole ratio of 0-0.5 for calcium hydroxide. Since applicant does not have support in the specification for a calcium hydroxide ratio range of 0 to 0.5 (as discussed above under concerning 35USC 112, first paragraph), since this range limitation contradicts the recitation of "calcium hydroxide, or a calcium salt, or a mixture of the two" in claims 1,7,12,13,39, and 79.

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1,4-7,9,11 are rejected under 35 U.S.C. 102(b) as being anticipated by Basel et al. (US 4369197), as evidenced by Wagner et al. (US 3366490).

10. Basel et al. teaches covering a nutriment material (i.e. tomatoes) with sulfuric acid containing liquor with a pH of 1-1.35 (i.e. has a pre-determined amount of calcium

sulfate) , adding calcium hydroxide to the coated nutriment, and mixing with agitation at 40-70°F (i.e. the mixing temperature disclosed by applicant of 8-12°C on page 13 of the specification). Basel et al. add sufficient calcium hydroxide to arrive at the *initial pH* level which the product had prior to the acidic storage of the product (Column 5, lines 30-33), as evidenced by Wagner et al. tomatoes have a pH of 4.45 (See Example 1, Table 1). Thus, Basel et al. use the same reactants, the same mixing conditions, and teaches the calcium hydroxide is added to sulfuric acid beginning at as low as pH of 1 up to 4.45. As Basel et al. add the calcium hydroxide to the acid, Basel et al. inherently forms the recited AGIIS at any point from pH=1 to less than pH=2. (Column 1, lines 10-40, Column 2, line 57 to Column 3, line 44, and Column 5, line 5 to Column 6, line 1).

11. Although Basel et al. do not explicitly teach a particular mole ratio of reactants or isolating the resulting AGIIS, Basel et al. still anticipates the claims. With respect to the mole ratio, Basal et al. teach the ratio of calcium hydroxide to sulfuric acid is initially 0, and adds sufficient calcium hydroxide from pH of 1 to pH of 2 (eventually pH of 4.45), which would inherently include mole ratios of "less than 0.5"(i.e. a mole ratio of 0 to 0.5). With respect to adding an isolated AGIIS, the claim recites a prepared nutriment "comprising" the AGIIS, which does not exclude other materials from being present, and could include an AGIIS and the reactants or the other products.

12. Claims 1, 4-9,11 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Wurzburger et al. (US 6331514 B1).

13. Regarding claims 1,4-9, 11, Wurzburger meets the composition limitations of the claims: a prepared nutriment comprising: an AGIIS of a pH<2.5 (i.e. includes pH<2) and a nutriment, such as fruits and vegetables (see Column 1, lines 15-19, Column 4, lines 23-67, Column 7, lines 30-41, Column 8, lines 1-20, Column 8, line 53 to Column 9, line 15, Column 10, line 15-25, Column 10, line 26 to Column 11, line 35). The composition claims now recite the AGIIS is made by a particular process. However, it is noted that the sparingly soluble complex formed by sulfuric acid and calcium hydride is the same as sulfuric acid and calcium hydroxide. The burden is shifted to the applicant to show how an AGIIS made from calcium hydroxide is different from the AGIIS made from calcium hydride.

Claim Rejections - 35 USC § 103

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over Basel et al. (US 4369197), as evidenced by Wagner et al. (US 3366490) as applied to claims 1,4,7-9, 11 above.

16. Basel et al. teach calcium hydroxide or Group II hydroxides, oxides, or carbonates (Column 5, lines 30-42). Therefore, it would have been obvious to substitute calcium carbonate or calcium oxide for calcium hydroxide since Basel et al.

teach these are equivalents. It is noted that claim 1 requires either calcium hydroxide OR calcium salt.

17. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurzburger et al. (US 6331514 B1) in view of Overton (US 5895782).

18. Regarding claims 12 and 13, Wurzburger et al. teach a method of contacting a nutriment material or a surface with an isolated AGIIS at a pH less than 2.5 wherein the AGIIS is formed from sulfuric acid for the purpose of cleaning (see Column 1, lines 15-19, Column 4, lines 23-67, Column 7, lines 30-41, Column 8, lines 1-20, Column 8, line 53 to Column 9, line 15, Column 10, line 15-25, Column 10, line 26 to Column 11, line 35); but Wurzburger et al. is silent in teaching the AGIIS is isolated from a mixture of sulfuric acid and calcium hydroxide or calcium salt or included with a carrier, prior to the filing date of May 7, 1999. However, Overton et al., from which Wurzburger et al. is a continuation, teach the same AGIIS with the same pH, the same non-corrosive features, for cleaning surfaces, that are obtained by adding Calcium oxide, a calcium salt, or Calcium hydroxide, depending on the desired mixing time, wherein the AGIIS is filtered and diluted with a carrier, depending on the degree of cleaning required (Column 3, lines 1-64). Therefore, to derive the AGIIS from a mixture of sulfuric acid and a calcium salt wherein the AGIIS is added to a carrier, would have been an obvious matter of choice since Overton et al. teach the same AGIIS with the same pH, the same non-corrosive features, for cleaning surfaces, and one would have been substituting one method of deriving an AGIIS for the same purpose. To provide the

AGIIS in a carrier would have been an obvious result effective variable depending on the degree of cleaning required, since Overton et al. placing the AGIIS in a carrier to dilute for objects that require less cleaning.

19. Claims 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurzburger et al. (US 6331514 B1) in view of Overton (US 5895782) and Denvir et al. (US 6120822).

20. Regarding claims 39-41 Wurzburger et al. teach a method of contacting vegetables or a surface with an isolated AGIIS at a pH less than 2.5 wherein the AGIIS is formed from sulfuric acid for the purpose of cleaning and is non-corrosive, as recited in claims 39 and 40 (see Column 1, lines 15-19, Column 4, lines 23-67, Column 7, lines 30-41, Column 8, lines 1-20, Column 8, line 53 to Column 9, line 15, Column 10, line 15-25, Column 10, line 26 to Column 11, line 35), but Wurzburger et al. is silent in teaching the AGIIS is isolated from a mixture of sulfuric acid and calcium hydroxide or calcium salt, added to a carrier, and blended with a dry nutriment, as recited in claim 39, or any particular suitable carrier as recited in claim 41, prior to the filing date of May 7, 1999.

21. With respect to the method of deriving the AGIIS, Overton et al., from which Wurzburger et al. is a continuation, teach the same AGIIS with the same pH, the same non-corrosive features, for cleaning surfaces, that are obtained by adding Calcium oxide, a calcium salt, or Calcium hydroxide, depending on the desired mixing time, wherein the AGIIS is filtered and isolated (Column 3, lines 1-64). Therefore, to derive the AGIIS from a mixture of sulfuric acid and a calcium salt wherein the AGIIS is added

to a carrier , would have been an obvious matter of choice since Overton et al. teach the same AGIIS with the same pH, the same non-corrosive features, for cleaning surfaces , and one would have been substituting one method of deriving an AGIIS for the same purpose.

22. With respect to providing a carrier, such as corn gluten as recited in claim 41, to combine with a dry nutriment, as recited in claim 39, Denvir et al. also teach contacting vegetables, such as corn, with a cleaning agent, for the same purpose as Wurzbarger et al. : to prevent contamination. However Denvir et al. further teach the treatment of the vegetables, such as corn, will also prevent contamination of foods subsequently mixed with or made from those vegetables, such as a food or feed, which would be dry nutriments (Column 1, lines 1-67). Therefore, it would have been obvious to further modify Wurzbarger et al. such that the decontaminated vegetable would be blended with a dry nutriment since Denvir et al. teach vegetables that are decontaminated prevent contamination of foods subsequently mixed with or made from those vegetables, such as a food or feed, which would be dry nutriments. To further select corn gluten as a carrier would have been an obvious matter of choice depending on the particular vegetable selected for decontamination with AGIIS, since Denvir et al. teach it is important to decontaminate vegetables such as corn to prevent contamination of food or feeds subsequently made from the vegetables such as corn.

Response to Arguments

23. Applicant's arguments filed February 17, 2004 with respect to Basel et al. regarding claims 12,13,39-41 in light of the amendment have been fully considered and are persuasive. The rejection of claims 12,13,39-41 under 35 U.S.C. 102(b) as being anticipated by Basel et al. (US 4369197), as evidenced by Wagner et al. (US 3366490) is hereby withdrawn.

24. Applicant's arguments filed February 17, 2004 with respect to Braun et al. (US 4830862) , Frielich et al. (US 6086927) and Tenmiyo et al. (JP358179436 A) in light of the amendment have been fully considered and are persuasive since Braun, Frielich et al., and Tenmiyo et al. teach a pH greater than 2.5. The rejection of claims 1 5,6,12,13,39,40 under 35 U.S.C. 102(b) as being clearly anticipated by Braun et al. (US 4830862), claims 1,4-9,11-13,39,40 under 35 U.S.C. 102(e) as being clearly anticipated by Frielich et al. (US 6086927), and claims 1,4,6, 7-9,11-13,39,40 under 35 U.S.C. 102(b) as being clearly anticipated by Tenmiyo et al. (JP358179436 A) have been withdrawn.

25. Applicant's arguments filed February 17, 2004 with respect to Theron et al. (US 4064284) in light of the amendment have been fully considered and are persuasive since Theron et al. teach sulfuric acid combined with wheat , with calcium hydroxide added to the mixture, but Theron et al. includes in intermediate wash step prior to the addition of calcium hydroxide without disclosing the resulting pH. Thus, Theron et al. do not teach a particular pH prior to calcium hydroxide treatment. The rejection of claims

1,2,4,6,7,9, 11-13,39,40, rejected under 35 U.S.C. 102(b) as being clearly anticipated by Theron et al. (US 4064284) is hereby withdrawn.

26. Applicant's arguments filed February 17, 2004 with respect to Kearns et al. (EP 0584976 A2) in light of the amendment have been fully considered and are persuasive since Kearns et al. teach a pH greater than 2.5 and does not teach sulfuric acid. The rejection of claims 1,5,6,12,13,39,40 under 35 U.S.C. 102(b) as being clearly anticipated by Kearns et al. (EP 0584976 A2) is hereby withdrawn.

27. Applicant's arguments filed February 17, 2004 with respect Wurzburger et al. (US 6331514 B1) regarding claim 12 in light of the amendment have been fully considered and are persuasive since Wurzburger et al. the AGIIS is from a mixture sulfuric acid and calcium hydroxide. Claim 12 rejected under 35 U.S.C. 102(e) as being clearly anticipated by Wurzburger et al. (US 6331514 B1) is hereby withdrawn.

28. Applicant's arguments filed February 17, 2004 have been fully considered but they are not persuasive with respect to Basel et al. (US 4369197). Applicant argues that Basel does not disclose an isolated AGIIS. Although Basel does not teach the recited method of forming AGIIS, the method in which Basel utilizes to treat tomatoes would inherently result in the recited prepared nutriment comprising AGIIS complexes, since Basel teaches (1) the recited reactants, (2) the recited pH, and (3) the recited quantity as explained above in the rejection of claims 1,4-7,9,11 rejected under 35 U.S.C. 102(b).

29. Applicant's arguments filed February 17, 2004 have been fully considered but they are not persuasive with respect to the rejection of claims 1,4-9,11 under 35 U.S.C. 102(e) as being clearly anticipated by Wurzburger et al. (US 6331514 B1).

30. Applicant argues that Wurzburger does not teach the recited AGIIS because Wurzburger teaches using calcium hydride. The examiner has reviewed application 08/994,547 and agrees the application '547 does not disclose calcium hydroxide. However, Wurzburger meets the composition limitations of the claims: a prepared nutriment comprising: an AGIIS of a $\text{PH} < 2$ and a nutriment. The limitation of how the AGIIS is prepared (i.e. mixing sulfuric with calcium hydroxide at the mole ratio of calcium hydroxide to sulfuric acid less than about 0.5) does not exclude the *process* of making the AGIIS of Wurzburger since it is a product-by-process limitation. Applicant is reminded that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." (In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)). Wurzburger meets the composition limitations of the claims: a prepared nutriment comprising: an AGIIS of a $\text{pH} < 2$ and a nutriment. Applicant has not shown how the AGIIS made from calcium hydroxide is different from the AGIIS made from calcium hydride.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

32. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 7:00AM-3:30PM M-F.

34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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35. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert Madsen
Examiner
Art Unit 1761



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